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EXAMINER

PEREZ DAPLE, AARON C

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 08/20/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,106

Applicant(s)

LIEBL ET AL.

Examiner

Aaron C Perez-Daple

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Lines 11-12 of claim 1 and line 10 of claim 17 recite the limitation "of each diagnostic value and the diagnostic value." There is insufficient antecedent basis for this limitation in the claims. The Office suggests "of one or more diagnostic values and the corresponding diagnostic value."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 15 recites the limitation "a third" in line 1. There is insufficient antecedent basis for this limitation in the claim. Specifically, there is no "second" diagnostic value in the claim. For the purpose of applying prior art, the Office will ignore the limitation "third."
4. Claim 16 recites the limitation "one axis" in line 1. There is insufficient antecedent basis for this limitation in the claim. Specifically, claim 15 does not include any axis. For the purpose of applying prior art, the Office will interpret claim 16 as including a graphical display with an axis wherein the scale of the axis can be changed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 12, 14, 15 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Seashore et al (US 5,916,286) (hereinafter Seashore).

As for claim 1, Seashore discloses a diagnostic tool comprising:

a data input port [port, 39, Fig. 3];

a microprocessor [microcontroller, 31, Fig. 3] linked to said data input port;

a data storage device [SRAM, 35, Fig. 3] linked to said microprocessor wherein a diagnostic application program can be stored in said data storage device;

a graphical user interface [display, 32, Fig. 3] linked to said microprocessor wherein said microprocessor receives diagnostic data from said data input port, stores said data to said data storage device, and provides output data to be displayed on said graphical user interface [col. 3, lines 13-17, "The information stored...the automobile status."]; and

wherein said output data is displayed on said graphical user interface as a list having an identification of each diagnostic value and the diagnostic value [col. 3, lines 8-11, "The automobile make and model...in the flash memory."; col. 6, lines 37-45, "A second group...confirms an option."].

7. As for claim 2, Seashore discloses the diagnostic tool of claim 1 wherein the location of a diagnostic value in the list of diagnostic values is selectable by a user [col. 6, lines 37-45, "A second group...confirms an option."].
8. As for claim 3, Seashore discloses the diagnostic tool of claim 2 further comprising an input device for selecting diagnostic values in the list [keypad, 33, Fig. 3].

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9. As for claim 4, Seashore discloses the diagnostic tool of claim 5 wherein said data input port links to and received data from an onboard vehicle computer [Fig. 1; col. 4, lines 45-53, "FIG. 1 is an illustration...to automotive computer 12."].

10. As for claim 12, Seashore discloses a method of displaying diagnostic data, comprising the steps of:

displaying a list of diagnostic values on a graphical user interface of a handheld diagnostic tool wherein said list includes an identification of each diagnostic value [col. 3, lines 1-17, "The portable automobile diagnostic...the automobile status."];

selecting a first diagnostic value from the list of displayed values; and changing the location of the first selected diagnostic value in the list [col. 3, lines 8-11, "The automobile make and model...in the flash memory."; col. 6, lines 37-45, "A second group...confirms an option."].

11. As for claim 14, Seashore discloses the method of claim 12 further comprising the step of loading a diagnostic application program into a memory device of said diagnostic tool [col. 5, line 63 – col. 6, line 6, "A programmable automobile...time on a vehicle."].

12. As for claim 15, Seashore discloses the method of claim 12 further comprising the step of storing a third diagnostic value into said memory device and displaying said third selected diagnostic value graphically [col. 3, lines 8-11, "The automobile make and model...in the flash memory."; col. 6, lines 37-45, "A second group...confirms an option."].

13. As for claim 17, Seashore discloses a diagnostic tool comprising:

a data input means [port and UART, 38 and 39, Fig. 3] for receiving data from sensors in a vehicle [col. 7, lines 42-46, "For example, a stream...to what sensor."];

a data storage means [SRAM, ROM, flash memory, 35, 37, 34, Fig. 3] for storing data received from said vehicle sensors and for storing a diagnostic application program [col. 9, line 51 – col. 10, line 21, “A step 44 comprises...reviewed at any time.”];

a user interface means [display, 32, Fig. 3] for providing user readable output;

a processor means [microcontroller, 31, Fig. 3] for receiving data from said data input means, storing said data to said data storage means, and outputting data to be displayed on said user interface means [col. 3, lines 1-17, “The portable automobile diagnostic...the automobile status.”]; and

wherein said output data is displayed on said user interface means as a list having an identification of each diagnostic value and the diagnostic value [col. 3, lines 8-11, “The automobile make and model...in the flash memory.”; col. 6, lines 37-45, “A second group...confirms an option.”].

14. As for claim 18, Seashore discloses the diagnostic tool of claim 17 wherein the location of a diagnostic value in the list of diagnostic values is selectable by a user [col. 6, lines 37-45, “A second group...confirms an option.”].
15. As for claim 19, Seashore discloses the diagnostic tool of claim 18 further comprising an input means for selecting diagnostic values in the list [keypad, 32, Fig. 3].
16. As for claim 20, Seashore discloses the diagnostic tool of claim 19 wherein said input device can be used to select a diagnostic value and move it to the top of the list [col. 6, lines 37-45, “A second group...confirms an option.”].

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 5-7, 10 and 13 are rejected under 35 U.S.C. 103(a) as being obvious over
Seashore in view of Borsuk (US 5,475,399).

As for claim 5, Seashore does not specifically teach using an input device to change the font of an entry in a list of diagnostic values. However, Borsuk teaches using an input device to change the font of entries in a display of a hand held portable unit [col. 2, line 51 – col. 3, line 6, “The present invention...displayed on the screen.”].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Seashore by using an input device, such as the keypad, to change the font of an entry in the list of diagnostic values in order to accommodate the needs of visually impaired or visually strained individuals, as taught by Borsuk [col. 2, lines 17-23, It should be realized...his or her needs.”].

19. As for claim 6, Seashore discloses a diagnostic tool similar to that of claim 5 wherein said data input port links to and receives data from an onboard vehicle computer [Fig. 1; col. 4, lines 45-53, “FIG. 1 is an illustration...to automotive computer 12.”].
20. As for claim 7, Seashore discloses a diagnostic tool similar to that of claim 6 wherein said data storage device includes a flash memory card [flash memory, 34, Fig. 3] and wherein said diagnostic application program is loaded on said flash memory card prior to inserting

said flash memory card into said diagnostic tool [col. 8, lines 24-25, "ROM 37 and a portion...diagnostic tool 30."].

21. As for claim 10, Seashore discloses a diagnostic tool similar to that of claim 9 further comprising a transmitter connected to said microprocessor for wirelessly transmitting data [col. 4, lines 53-56, "An alternate to cable 15...provide cableless communications."].

22. As for claim 13, Seashore does not specifically teach changing the font of a selected diagnostic value. However, Borsuk teaches changing the font of selected values in a display of a hand held portable unit [col. 2, line 51 – col. 3, line 6, "The present invention...displayed on the screen."].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Seashore by changing the font of a selected diagnostic value in order to accommodate the needs of visually impaired or visually strained individuals, as taught by Borsuk [col. 2, lines 17-23, It should be realized...his or her needs."].

23. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being obvious over Seashore in view of Borsuk and in further view of Danielson et al (US 5,895,906) (hereinafter Danielson).

As for claim 8, Seashore teaches the use a hardware interface port for interfacing with various hardware systems and for downloading software applications [port, 39, Fig. 3; col. 7, lines 37-60, "Portable automobile diagnostic...codes stored therein."]. However neither Seashore nor Borsuk specifically disclose the use of a hardware interface module with memory for storing a software application in conjunction with the hardware interface port. However, Danielson teaches the use of a hardware interface module with memory for storing

a software application in conjunction with a hardware interface port [col. 3, lines 38-42, "A feature of the...concerning a transaction."].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore and Borsuk to include a hardware interface port module containing a diagnostic application program and wherein the diagnostic tool contains a hardware interface port for receiving said hardware interface port module, because this would allow a user to interact with a central processing station, as taught by Danielson [col. 1, lines 58-64, "In another aspect...computer processing station."].

24. As for claim 9, neither Seashore nor Borsuk specifically disclose a diagnostic tool wherein a plurality of hardware interface port modules having separate diagnostic application programs can be provided for connection, at different times, to said hardware interface port. However, Danielson teaches the use of a plurality of hardware interface port modules having separate diagnostic application programs which can be provided for connection, at different times, to said hardware interface port [col. 3, lines 18-24, "The computer processor...hand-held unit."]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore and Borsuk to include the use of a plurality of hardware interface port modules having separate diagnostic application programs which can be provided for connection, at different times, to said hardware interface port because this would allow a user to interact with a central processing station or stations, as taught by Danielson [col. 1, lines 58-64, "In another aspect...computer processing station."].

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25. Claim 11 is rejected under 35 U.S.C. 103(a) as being obvious over Seashore in view of Borsuk and in further view of Herrod et al (US 6,405,049) (hereinafter Herrod). Neither Seashore nor Borsuk specifically disclose the use an infrared transmitter wherein said data is wirelessly transmitted to a printer. However, Herrod discloses the use of an infrared transmitter for wirelessly transmitting data to a printer [Fig. 10; col. 17, lines 27-49, "The wireless communications...range for the terminal."].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore and Borsuk to include the use of an infrared transmitter for wirelessly transmitting data to a printer, as taught by Herrod, in order to allow the operator to generate a paper copy of diagnostic data over a wireless network.

26. Claim 16 is rejected under 35 U.S.C. 103(a) as being obvious over Seashore in view of Borsuk and in further view of Gurne et al (US 5,541,840) (hereinafter Gurne).

Neither Seashore nor Borsuk specifically disclose displaying a diagnostic value using a graph with an axis, nor changing the scale of the axis. However, Gurne discloses displaying a diagnostic value using a graph with an axis wherein the scale of the axis can be changed [Fig. 12; col. 16, lines 41-65, "As shown in FIG. 12...costly test equipment."].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore and Borsuk to include displaying a diagnostic value using a graph with an axis wherein the scale of the axis can be changed, because this would allow the operator to view diagnostic information as it changes over time, as taught by Gurne [col. 16, lines 52-61, "Since the data...events or occurrences."].

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,172,620, note Figs. 1 and 3; EP 1207072, note display in Figs. 2 and 3; US 6,550,672, note full graphics support; US 6,452,597, note changing fonts, col. 2; US 6,141,608, note selectable list, cols. 3-4; US 6,253,129, note Figs. 6A-C; US 5,781,872, note Figs. 10-22; US 5,163,001, note use of interface card; US 4,441,359, note Fig. 1.
28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron C Perez-Daple whose telephone number is (703)305-4897. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on (703)305-0282. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Aaron Perez-Daple


ANIL KHATRI
PRIMARY EXAMINER